

REMARKS

Examiner Siew is thanked for his thorough search and Office Action. Reconsideration of the rejection of all claims is respectfully requested. We wish to comment on his remarks as follows:

Reconsideration is requested of all rejections based on 35 USC 103:

In his first rejection, Examiner stated (page 6) that "Claims 21, 22 & 23 & 26 are free of the prior art but objected to for depending on a rejected claim.". Accordingly we canceled claim 26 and amended claim 19 to include the limitations contained in claim 26.

In his final rejection, Examiner stated (page 5) that "Claims 21, 22 & 23 & 26 are free of the prior art but objected to for depending on a rejected claim.". In a conversation with the undersigned attorney, Examiner acknowledged that he had overlooked the cancellation of claim 26 but further stated that, for reasons not in the record, adding the limitations contained therein to claim 19 did not place claim 19 in condition for allowance.

Since the exact situation is not fully clear to us, we have (once again) canceled claim 26 and added its limitations to claim 19. If Examiner's position continues to be that

IME01-001

this does not make claim 19 allowable, we respectfully request that Examiner provide us with the new grounds on which he has relied for his rejection of claim 26 so that we may be given an opportunity to rebut them..

On the assumption that Examiner's objection to (as opposed to rejection of) claims 21-23 has not changed, we have added the limitations of each of these claims to claim 19 which has resulted in the creation of three new claims (27-29).

Since the status of amended claim 19 has yet to be resolved, we have not canceled claims 21-23 at this time.

Reconsideration and withdrawal of the rejection is therefore respectfully requested.

Allowance of all Claims is requested. It is also requested that should Examiner Siew not find that the Claims are now Allowable, he should please call the undersigned Attorney at (845)-452-5863 to overcome any problems preventing Allowance.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'Stephen B. Ackerman', with a stylized, looping flourish at the end.

Stephen B. Ackerman #37761

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the claims:**

Please cancel claim 26.

Please amend the following claim:

19. A process for simultaneously performing multiple, independently controlled, chemical reactions, comprising:

providing, on a heat sink, a printed circuit board on which is an array of blocks, said blocks having high thermal conductivity;

providing an array of reaction chambers in a chip formed of material having low thermal conductivity, said chip being disposable and selected from the group consisting of plastics, polymers, elastomers, glass, silica, and ceramics;

filling each reaction chamber with reagents necessary for said chemical reaction and then pressing the chip against the blocks in a manner such that at least one reaction chamber symmetrically overlies a single block; and

independently heating each block that is overlaid by a filled reaction chamber whereby the reagents in each chamber are maintained at a constant and uniform temperature for a time period, said temperature and time period being independently adjustable for each chamber.

IME01-001

Please add the following new claims:

27. A process for simultaneously performing multiple, independently controlled, chemical reactions, comprising:

providing, on a heat sink, a printed circuit board on which is an array of blocks, said blocks having high thermal conductivity;

providing an array of reaction chambers in a chip formed of material having low thermal conductivity;

filling each reaction chamber with reagents necessary for said chemical reaction and then pressing the chip against the blocks, in a manner such that at least one reaction chamber symmetrically overlies a single block;

attaching sidewalls to the chip, said sidewalls extending downwards from the chip by an amount such that, when the chip touches the blocks said sidewalls just contact the printed circuit board, thereby forming an airtight enclosure;

evacuating the enclosure through a hole that passes through both the heat sink and the printed circuit board; and

independently heating each block that is overlaid by a filled reaction chamber whereby the reagents in each chamber are maintained at a constant and uniform temperature for a time period, said temperature and time period being independently adjustable for each chamber.

IME01-001

28. A process for simultaneously performing multiple, independently controlled, chemical reactions, comprising:

providing, on a heat sink, a printed circuit board on which is an array of blocks, said blocks having high thermal conductivity;

providing an array of reaction chambers in a chip formed of material having low thermal conductivity;

filling each reaction chamber with reagents necessary for said chemical reaction and then pressing the chip against the blocks, in a manner such that at least one reaction chamber symmetrically overlies a single block;

providing a covering case, having a ceiling, that rests on the printed circuit board and that encloses both the blocks and the chip;

providing rods that extend downwards from said ceiling, each rod having a free end that is pointed and a length such that, when the covering case rests on the circuit board, said rods press down on the chip;

placing the covering case on the circuit board thereby causing said rods to press the chip against the blocks; and

independently heating each block that is overlaid by a filled reaction chamber whereby the reagents in each chamber are maintained at a constant and uniform temperature for a time period, said temperature and time period being independently adjustable for each chamber.

IME01-001

29. A process for simultaneously performing multiple, independently controlled, chemical reactions, comprising:

providing, on a heat sink, a printed circuit board on which is an array of blocks, said blocks having high thermal conductivity;

providing an array of reaction chambers in a chip formed of material having low thermal conductivity;

filling each reaction chamber with reagents necessary for said chemical reaction and then pressing the chip against the blocks, in a manner such that at least one reaction chamber symmetrically overlies a single block;

providing a fixture that includes an additional heat sink, an additional printed circuit board, and additional blocks;

positioning said fixture in an inverted orientation to touch the chip with said additional heat sink, additional printed circuit board, and additional blocks being aligned relative to said heat sink, printed circuit board, and blocks;

using an adjustable clamp, pressing together the fixture, the chip, and the blocks;  
and

independently heating each block that is overlaid by a filled reaction chamber whereby the reagents in each chamber are maintained at a constant and uniform temperature for a time period, said temperature and time period being independently adjustable for each chamber.